TWELFTH AIR FORCE

SAFETY GRAM

SEPTEMBER 2002

SE MISSION: Maximize combat capability by preserving combat resources through safety education, awareness, and mishap prevention efforts

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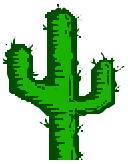


Greetings From the New Guy
by
Col (s) Mark Tapper

First, I would like to take the opportunity to say what an honor and privilege it is to be working for you at 12 AF Safety. I look forward to working with you all and doing my best to have a positive impact on the safety of your personnel and their families. Second, I want to assure you that the 12 AF Safety staff is truly able and willing to help you in many ways to ensure your safety programs are healthy and active. Call, write, or visit any time.

As we approach the end of summer we are afforded an opportunity to reflect on safety programs and their effectiveness. Did the programs reach the intended audience to the degree we intended? Were supervisors and commanders at all levels involved in the daily risk assessment and mitigation? What were the positive aspects of our safety programs and who were some of the folks responsible for making positive, lasting improvements in your wings, groups, squadrons, and flights?

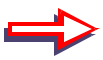
Measuring success in the safety business is sometimes very difficult. It is easy to measure failure and all too often it seems we focus on the negative. Some of that focus is inevitable in our efforts to prevent repeat incidents and mishaps. I would implore each of you to try to identify safety successes and highlight those positive programs. That highlight will allow sharing of those programs so others can share in your success and allow identification of those individuals that have made that positive, lasting impact so we can give them a big pat on the back.

The end of summer also means the beginning of fall…that changes the nature of the safety challenge. Each base has unique challenges. For some it means more hazardous road conditions due to weather or increasing populations of aging drivers. For others it means more adverse flying conditions. I urge each of you to take the time to recognize the risks that change every day. Get the families involved in the same type thought process. Recognition of risk is the first step. Only then can one start to take steps to minimize potential hazards. Giving folks the time for this risk recognition is key to the risk management that we would like everyone to start to exercise in their daily lives. In the flying business we provide this time in mission planning, briefing, step briefings, and debriefs. I ask that you find innovative ways to provide the same type time opportunities for risk acknowledgement to other disciplines. This is especially important in the seemingly mundane daily activities like commuting to work and sports and recreation...where a large number of mishaps occur. Every incident we prevent is a positive measure of success. Preservation of resources enhances mission effectiveness.

Disturbing Trends
by
Lt Col Ed Jarrett

Mishap rates are up across the board. You don't have to look too far to hear about yet another Class A flight mishap or ground fatality. At this time last year, we were gloating over 12 AF's zero flight Class A mishaps even though plagued by numerous engine Class B mishaps. Ground mishaps had continued on their unchanged route of approximately 8 Class A mishaps/year. Weapons maintained their phenomenal record of no Class A or B mishaps. But this year has been different and disturbing as the frequency with which we have lost aircraft and people continues to rise almost unchecked. So what gives?

In the flight arena, our Air Force is having a very bad year. To date, we've had 33 Class A mishaps raising our mishap rate from a near low this time last year of 19 with rate of 1.06/100,000 fhrs to a near high rate this year of 1.76/100,000 fhrs. Out of those 33, AFSOC accounted for 8 mishaps (FY01 was zero) equal to the total number ACC has experienced. In 12 AF alone, we've had 7 Class A mishaps (2 UAVs non-rate producing). Maintenance/logistics appears to be the leading cause for our 12 AF mishaps to date with ops following close behind. Whether you're

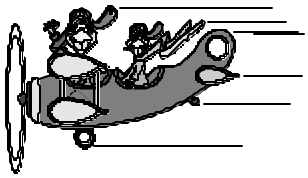


home doing training or deployed in the AOR, as safety professionals you need to be taking a hard and focused look at your flying operations. Raise that BS flag when you see something wrong and get it corrected ASAP. Look for trends by working close with our QA maintainers. Identify tech order changes and or safety instructions and get the process moving. Help your commanders utilize risk management tools as they weigh the critical nature of the mission at deployed locations. If you need help, get your friendly NAF safety staff energized.

In the ground arena, we're taking folks out on our highways with frightening regularity. Air Force wide we've lost 75 airmen to off-duty ground fatalities along with another 5 to on-duty mishaps. This represents a 50% increase in off-duty mishaps and 60% increase in on-duty mishaps. PMV fatalities represent 61 of 75 dead airmen. In 4 wheel mishaps, the top three contributing factors were alcohol, speed, and darkness. In 2 wheel mishaps (17), proficiency, speed and darkness were contributing factors. Personal involvement by supervisors with their personnel is vital to getting the message across concerning defensive, smart and alcohol free driving. We all know the target age group—try to communicate in innovative ways to reach these folks. It's tough work, but the dividends are keeping our young people safe from themselves.

Weapons safety cannot be taken for granted despite a nearly flawless record. Tech order compliance, conservate procedures and an eye for potential problems should be reinforced whenever possible.

Why we're having mishaps can probably be directly attributed to ops tempo and lots of deployed time away from home. We're pushing our folks whether they're at home or deployed as the work load never declines. Deployed folks must meet mission requirements in sustaining theater operations with long hours and unfavorably hot climates. Folks at home are burdened by completing the work of the many that are absent. No one gets a break and stress increases for all of our personnel. Stress management and dealing with the issues associated with stress problems must be part of your safety repertoire. Think about teaching coping strategies that directly address high risk activities that are poor stress relievers. What do you say to that young 20 year old who has been deployed for 179 days and gets that 2 weeks off and then, plans to take some of his well-earned leave? How do you reach that 19 year old who knows that unrestricted alcohol is only a short 30 minute drive to the Mexican border? Get out, walk around, and communicate our safety message. Let's get these terrible safety rates/ numbers moving back in the right direction.



Making ORM Work For You

by

Maj Fred Biddix

Based on the renewed emphasis by the CSAF on ORM, I'd like to review an aspect of ORM for this month's newsletter. Part one of the six-step ORM process is to identify the hazards. In traditional ORM, this consists of a couple of old heads sitting around and brain storming their experiences and slapping together some potential courses of actions based on those collective experiences.

The key in using the USAF six-step ORM process is that the methodology will identify up to 50% more hazards. Try not to jump the gun during the first step by attempting to find solutions, just stick to hazard ID. In AFPAM 90-902, there are seven primary tools listed in the ID process that can be used for this purpose. The point is you don't have to use all seven but utilizing a few will generate the overall goal of covering all the bases in the ID process. Again, the unspoken aspect of hazard ID is having the right personnel available to conduct the analysis.

The first two tools that I will briefly discuss are: The Operations Analysis and the Primary Hazard Analysis (PHA). These two are frequently used hand in hand and generally, the use of the Ops Analysis leads to using the PHA.

The Ops Analysis: Think of this tool as

look at a process in increments that are appropriate for the situation. Usually, this is the best place to start any hazard ID process in that you get a chance to see the major phases of any action/process. Focus on the critical components of the mission. Some level of detail is OK but try not to get down into the weeds.

For example an Operational Analysis of a drive to work:

- Check the car for readiness.
- Back the car out of garage and enter street.
- Follow prescribed route to work.
- Adjust to any developing contingencies.
- Park the car at the proper location at work.

Any of these could be broken down into more detail, but in general the major areas are identified sufficiently enough to lead to further analysis. Note that frequently an Ops Analysis doesn't necessarily actually ID any hazards, but identifies major phases or overlaps that can be studied in detail.

At this point in an Ops Analysis, you step to the next tool in the toolbox and use a PHA to further expand and conduct an initial assessment. A PHA is just a quick "brain storm" of risks that are associated with each phase of a particular action. Consequently, you can see why this typically follows an Ops Analysis. In essence, take each phase of the Ops Analysis and brainstorm any potential hazards that could realistically exist in that phase. In time-critical ORM, situations using an Ops Analysis and a PHA may be all that you have time for.

From the above example of driving to work:

- Check the car for readiness.
  - Lack of mission readiness (adequate fuel, oil, coolant, tires in good shape)
  - Lack of safety readiness (no seat belts, air bags inop, headlights inop, no snow tires)
- Back the car out of garage and enter the street.
  - Inadequate clearances (garage clutter, garage door operation)
  - Children playing in the driveway
  - Other cars parked in the driveway
- Follow prescribed route to work.
  - Routine traffic hazards
    is the best place to start any hazard I process in that you get a chance
  - Non-routine traffic hazards (parade route, emergency vehicle, traffic accidents)
- Adjust to any developing contingencies.
  - Route blocked due to construction
  - Car failure
  - Criminal activity
- Park the car at the proper position at work.
  - Spot is already filled
  - Lack of clearance

ORM is simply a methodology to what would otherwise be a common sense approach to analyzing risk. The above example is very simple. Nevertheless, you can see how with a more complex process you would benefit from this approach.

Mishap Investigation –

A Refresher

by
SMSgt Doug Condra

When Do You Conduct An Investigation?

All incidents, whether a near miss or an actual injury-related event, should be investigated. To what degree can be determined on a case-by-case basis. Near miss reporting and investigation are a means to allow you to identify and control hazards before they cause a more serious incident. Accident/incident investigations are a tool for uncovering hazards that either were missed earlier or have man-

aged to slip out of the controls planned for them. It is useful only when done with the aim of discovering every contributing factor to the accident/incident to "foolproof" the condition and/or activity and prevents future occurrences. Your objective is to identify root causes, not to primarily set blame.

Definitions

ACCIDENT - The National Safety Council defines an accident as an undesired event that results in personal injury or property damage.

INCIDENT - An incident is an unplanned, undesired event that adversely affects completion of a task.

NEAR MISS - Near misses describe incidents where no property was damaged and no personal injury sustained, but where, given a slight shift in time or position, damage and/or injury easily could

Who Should Investigate?

The usual investigator for near-miss incidents is the supervisor in charge of the involved area and/or activity. Trained safety investigators investigate incidents involving serious injury or extensive property damage. Mishap investigations represent a good way to involve employees in safety and health. Employee involvement will not only give you additional expertise and insight, but in the eyes of the workers, will lend credibility to the results. Employee involvement also benefits the involved employees by educating them on potential hazards, and the experience usually makes them believers in the importance of safety, thus strengthening the safety culture of the organization.

Training For Incident Investigation

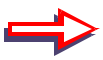
No one should investigate incidents without appropriate mishap investigation training. Many safety and health consultants and professional organizations provide this type of training. You, as a safety professional, can provide shop supervisors with near-miss investigation training. Before committing resources to training, you might want to check the course contents and determine it is exactly what you're looking for. Speak with fellow safety professionals to learn of their training resources.

The Investigative Report Should Answer Six Key Questions

Six key questions should be answered: who, what, when, where, why, and how. Fact should be distinguished from opinion, and both should be presented carefully and clearly. The report should include thorough interviews with everyone with any knowledge of the incident. A good investigation is likely to reveal several contributing factors, and it probably will recommend several preventive actions.

You will want to avoid the trap of laying sole blame on the injured employee. Even if injured workers openly blame themselves for making a mistake or not following prescribed procedures, the accident investigator must not be satisfied that all contributing causes have been identified. The error made by the employee may not be even the most important contributing cause. The employee who has not followed prescribed procedures may have been encouraged directly or indirectly by a supervisor or production quotas to "cut corners." The prescribed procedures may not be practical, or even safe, in the eyes of the employee(s). Sometimes where elaborate and difficult procedures are required, engineering redesign might be a better answer. In such cases, management errors -- not employee error -- may be the most important contributing causes.

All supervisors and others who investigate incidents should be held accountable for describing causes carefully and clearly. When reviewing accident investigation reports, the safety professional should be on the lookout for catch-phrases, for example, "Employee did not plan job properly." While such a statement may suggest an underlying problem with this worker, it is not conducive to identifying all possible causes, preventions, and controls. Certainly, it is too late to plan a job when the employee is about to do it. Further, it is unlikely that safe work will always result when each employee is expected to plan procedures alone.



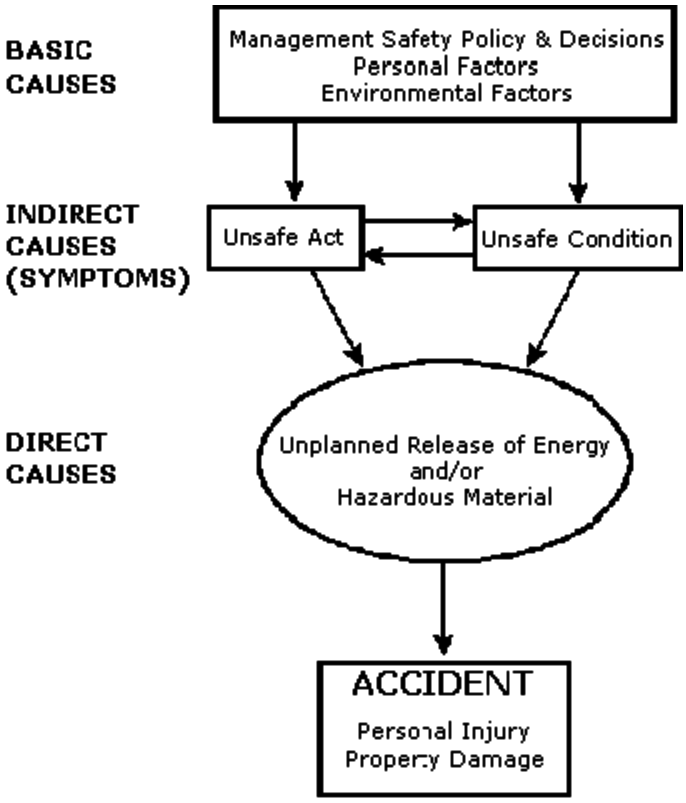
Implications Of Mishap Investigations

Recommended preventive actions should make it very difficult, if not impossible, for the incident to recur. The investigative report should list all the ways to "foolproof" the condition or activity. Considerations of cost or engineering should not enter at this stage. The primary purpose of accident investigations is to prevent future occurrences. Beyond this immediate purpose, the information obtained through the investigation should be used to update and revise the inventory of hazards, and/or the program for hazard prevention and control. For example, the Job Safety Analysis should be revised and employees retrained to the extent that it fully reflects the recommendations made by an incident report. Implications from the root causes of the accident need to be analyzed for their impact on all other operations and procedures.

Finding the "Basic Cause"

Mishaps are usually complex. An accident may have numerous events that can be causes. A detailed analysis of an accident will normally reveal three cause levels: basic, indirect, and direct. At the lowest level, an accident results only when a person or object receives an amount of energy or hazardous material that cannot be absorbed safely. This energy or hazardous material is the DIRECT CAUSE of the accident. The direct cause is usually the result of one or more unsafe acts or unsafe conditions, or both. Unsafe acts and conditions are the INDIRECT CAUSES or symptoms. In turn, indirect causes are usually traceable to poor management policies and decisions, or to personal or environmental factors. These are the BASIC CAUSES.

In spite of their complexity, most accidents are preventable by eliminating one or more causes. Accident investigations determine not only what happened, but also how and why. The information gained from these investigations can prevent recurrence of similar or perhaps more disastrous accidents. Accident investigators are interested in each event as well as in the sequence of events that led to an accident. The accident type is also important to the investigator. The recurrence of accidents of a particular type or those with common causes shows areas needing special accident prevention emphasis.



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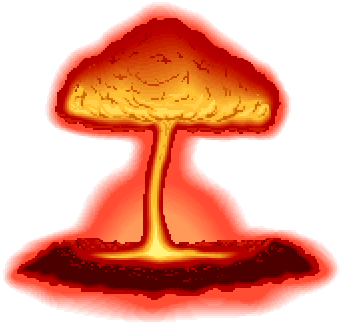

12 AF WEAPONS SAFETY PERSPECTIVE
By
TSgt Rick Rexin

Congratulations go out to our MSgt selects, Brian Sillman at Holloman and William Taisler at Mt Home. Great job!!! It is time to say goodbye to MSgt Tony Lozano who will be retiring this month. It was great to know and work with you. Best of luck in the future. MSgt William Haught coming to us from Spangdahlem will

be heading the 12th AF Weapons Safety Team. He will be arriving in late September . Once he gets settled in, please give him a call and introduce yourself.

SITE PLANNING ISSUES

If you have any shortcuts/lessons learned that would help the other WSM's out there please share it! The more info we are able to pass on to each other the better the product that we can give to ACC and hopefully speed up the review process. Those of you that are done with your ESP's, Great Job and thank you for your hard work. For those that still have some work to do, keep on plugging away. The end is in site. If you need assistance please ask. Below is a list that may help you in your site planning area.

* Hazard Class/Division (HC/D) 1.2.1 – when annotating an MCE of 100 lbs or less, your AF Form 943 entries should reflect <100. I have received some submissions that reflect ≤100. This entry is incorrect, as it does not correspond to the columns in AFMAN 91-201, Table 3.3.

* Site planning using ASHS - if you run into problems while using ASHS, call or e-mail me or the experts at ISA, (850) 862-7321. Do not manipulate the program or your data to get the desired response. This also applies to the 943's that ASHS is generating. If you have to make changes to them please keep notes and forward them with the ESP package. AFSC and ISA are trying to validate the program. If we make unwanted and unnecessary changes, it defeats the purpose. When in doubt, give someone a shout!

Highlights from our friends at ISA:

There is a new release (2347) to ASHS out there. If you have not downloaded it you can get it at: https://www.gnt.net/~beckerl/. Here are a few changes in this release: Changed category to Obsolete for facility types 422A43 (1.4-Only Magazine) and 422A48 (1.4-Only Igloo) IAW direction from AFSC/SEW. Users will be prompted to switch to normal facility types (i.e. Aboveground Magazine or Earth Covered Magazine) so that standard IMD will be applied to locations storing HCD 1.4 munitions. (If this causes you some problems please give me a call and I will try to help you resolve the problem.) Raised QD to 100 feet for a few cases when ES is a Parking Lot. AFSC states 100-foot separation is necessary even from PES that normally require zero QD (e.g. HAS side/rear for HCD 1.3; CAPA for HCD 1.4; etc.). Raised the QD back up to 100 feet for HCD 1.4 when the PES is an Igloo side/rear and the ES is a POV/GOV parking area. AFSC notified us their previous direction to lower the required distance to 50 feet on 8/7/01 was in error.

HC/D 1.3 on the Flight line:

QD is now required between flight line PES sited for HC/D 1.3 IAW note 17 to Table 3.3. IMD will be used for HC/D 1.3 to an ES CAPA or explosives loaded cargo aircraft sited for propagation protection; PTR will be used if the ES is sited for survival. Don't be surprised if HC/D 1.3 is now sometimes more restrictive than either 1.1 or 1.2; there's going to be at least a few cases where that will happen. Exceptions for HC/D 1.3 are permitted IAW paragraph 3.25.4. If you meet the exceptions and don't want ASHS to compute QD from your aircraft as a PES, just leave the sited NEW zero. ASHS will still compute required QD back to the aircraft as an ES regardless of whether it's sited for NEW or not.

HC/D 1.4 on the Flight line:

QD is no longer required for HC/D 1.4 from a CAPA as a PES IAW paragraph 3.25.4. This is a truly wonderful change that should make your overworked WSM hearts overflow with joy. Makes no difference if it's internal or external; whether it's on a bomber, fighter, or chopper...if it's 1.4, it's QD free. O Happy Day! Bear in mind QD is still required from a PES aircraft carrying HC/D 1.4 as cargo or from prepositioned reloads on trailers. Read paragraph 3.25.4 for all the juicy details.

Munitions in the Open:

Ever since the new 1.2 hazard class/divisions were introduced in 1998, ASHS has applied QD for 1.2.1 MCE from Combat Aircraft, open HAS fronts, and flatbed trailers. The Safety Center has just given us fresh guidance that MCE for HC/D 1.2.1 and 1.2.3 will be applied only from munitions that are carried internally. Munitions carried externally on aircraft or trailers will be considered in the open so QD will not be applied for MCE. We don't anticipate any significant effects from this change. Most HC/D 1.2 weapons must be treated as HC/D 1.1 when out of their standard shipping configuration. The change in criteria will result in some increases in allowable MCE and some decreases in required Regardless of the changes impact, units with affected weapons configurations will need to make note of the following. For situations where weapons are internally loaded as in the B-1, F-117, or a MILVAN, MCE still applies and no change in ASHS is needed. When munitions are loaded externally such as on CAPAs, in open HAS fronts, or on flatbed trailers, you will now need to select "External Carriage" as a Reduced QD option. It is available under the new Reduced-QD category Munitions in the Open. 1.

AWARD TIDBITS
By
Sherry Millner

This has been a good year for safety award winners in 12 AF. The new changes that came out of ACC a few months ago have improved and streamlined the process. There are still some problems that need to be addressed when submitting pictures. ACC does not want the standard mug shot in front of the flag. They would like action pictures taken in the workplace with the nominee performing his/her job. When you forward a picture up to us that has more than one person in it, please enclose the names of the members and in what order they appear in the picture. Most of you have an office digital camera, so feel free to go to take a picture of your award nominee in his/her workplace. This eliminates the wait for someone else to do it from the photo lab and you can show off your talent as a photographer. Make sure you include the name of the person who took the picture so they will get credit.

The time is fast approaching for annual awards. This process has also been streamlined by ACC. When we receive awards this year, our office will pick one in each category and forward it up. ACC will then pick their winner in each category and forward their selection up to compete at the Air Force level. A nominee must compete at the ACC level before being sent up to compete at a higher level.

Please refer to ACC Message on the Revised ACC Safety Awards Program. If you‘re missing the message, let me know and I will forward it to you. Remember your narrative should be ready for publication in the *Combat Edge* magazine if your submission wins. Make it interesting but no fluff--it is not a performance report.